

Docket No. 292873USOPCT



IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Stephane POCAS, et al.

SERIAL NO: 10/584,052

GAU:

FILED: June 22, 2006

EXAMINER:

FOR: METHOD OF SEALING TWO PLATES WITH THE FORMATION OF AN OHMIC CONTACT THERE BETWEEN

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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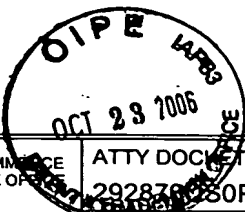
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Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
292870080PCTSERIAL NO.
10/584,052

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Stephane POCAS, et al.

FILING DATE

June 22, 2006

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	6 274 892	08-14-01	KUB, Francis J. et al.			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AL	38 29 906	03-15-90	DE (with English abstract)		NO
	AM	43 04 349	08-18-94	DE		NO
	AN					
	AO					
	AP					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AQ	ZHU, Shiyang et al., "Buried Cobalt Silicide Layer Under Thin Silicon Film Fabricated by Wafer Bonding and Hydrogen-Induced Delamination Techniques", Journal of the Electrochemical Society, Vol. 146. NO. 7, pgs. 2712-2716, 1999.
	AR	HAISMA, Jan, "Contact Bonding, Including Direct-Bonding in a Historical and Recent Context of Materials Science and Technology, Physics and Chemistry Historical Review in a Broader Scope and Comparative Outlook", Materials Science and Engineering, Vol. 37, pgs. 1-58, 2002.
	AS	XIAO, Zhi-Xiong et al., "Low Temperature Silicon Wafer-to-Wafer Bonding with Nickel Silicide", J. Electrochem. Soc., Vol. 145, No. 4, pgs. 1360-1362, 1998.
	AT	MORICEAU, H. et al., "The Bonding Energy Control: an Original Way to Debondable Substrates", Electrochemical Society Conf., Vol. 19, 2003.
	AU	NICOLET, Marc-A et al., "Silicides", VLSI Handbook, pgs. 415-432, 1985.
	AV	TONG-GOESELE, "Semiconductor Wafer Bonding", The Electrochemical Society Series, pgs. VII-XVIII, 1-15, 49-135, 1998.
	AW	IYER, S.S. et al., "Silicon Wafer Bonding Technology for VLSI and MEMS Applications", INSPEC, pgs. V-XXV, 1-51, 123-143, 2002.
	AX	SAKAGUCHI, K. et al., "Eltran By Splitting Porous SI Layers", Electrochemical Society Proceedings, Vol. 99-3, pgs. 116-121, 1999.
	AY	AUBERTON-HERVE, A.J., "Why Can Smart Cut Change the Future of Microelectronics?", International Journal of High Speed Electronics and Systems, Vol. 10, No. 1, pgs.131-146, 2000.
	AZ	

☐ Additional References sheet(s) attached

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. PCT Application Serial No: 10/584,052

Filed: June 22, 2006

Stephane POCAS, et al.

Docket No. 292873US0PCT

STATEMENT OF RELEVANCY

- 1) References AA, AL and AQ have been cited in the International Search Report. A copy of these references is being submitted herewith.
- 2) References have been cited in the corresponding Search Report. A copy of these references is being submitted herewith.
- 3) References AR - AU are discussed in the specification. A copy of these references is being submitted herewith.
- 4) References AM, AV - AY are additional prior art known to Applicant. A copy of these references is being submitted herewith.

AM: DE 43 04 349

It relates to a method for producing semiconductor components by direct bonding (SDB). The plane surfaces of two parts are polished with a low peak-to-valley roughness (height). A material is subsequently introduced into at least one of the two surfaces and the two surfaces are bonded after surface treatment. At least one of the two polished surfaces is provided by implantation of material with a crystal lattice imperfections, and these surfaces are then bonded. Silicon is preferably be implanted for the purpose of bonding silicon wafers. This method produces a substantially increased adhesion capability (adhesivity) of the bonded surfaces.